

What is claimed is:

1. An electric toothbrush comprising:

(a) a handle at a first end of the toothbrush having a motor disposed therein;

5 (b) a neck extending from said handle comprising a receiving member at a second end of the toothbrush, wherein a plurality of carriers engage said receiving member, wherein said plurality of carriers comprises one or more static carrier and one or more movable carrier, and wherein said one or more static carrier and said one or more movable carrier independently slidingly engage said receiving member; and

10 (c) a drive shaft operatively connecting said one or more movable carrier to said motor.

15 2. The electric toothbrush of Claim 1, wherein said receiving member is provided with bristles.

3. The electric toothbrush of Claim 1, wherein said carriers comprise bristles.

20 4. The electric toothbrush of Claim 1, wherein said carriers are selected from the group consisting of static and movable carriers comprising: brush head tips, static bristle carriers, movable bristle carriers, elastomeric elements, therapeutic elements, tartar control elements, and dental tools, and any combination thereof.

25 5. The electric toothbrush of Claim 1, wherein said carriers comprises a plurality of static bristle carriers.

6. The electric toothbrush of Claim 1, wherein said plurality of carriers releasably engage said receiving member.

30 7. The electric toothbrush of Claim 1, wherein said carriers engage said receiving member within channels defined by a surface of said receiving member.

35 8. The electric toothbrush of Claim 7, wherein said one or more movable carrier and said one or more static carrier engages said receiving member within separate channels defined by said surface of said receiving member.

9. The electric toothbrush of Claim 1, wherein said one or more movable carrier is nested within said one or more static carrier.

5 10. The electric toothbrush of Claim 1, wherein said one or more static carrier is retained on said receiving member by connectors defined by an outer surface of said receiving member matable with connectors defined by an inner surface of said one or more static carrier.

10 11. The electric toothbrush of Claim 10, wherein said matable connectors further comprise serrated teeth.

12. The electric toothbrush of Claim 1, wherein said one or more movable carrier engages said drive shaft by receiving a protuberance into an aperture.

15 13. The electric toothbrush of Claim 1, wherein said one or more movable carrier moves in a direction substantially parallel to said longitudinal axis of said receiving member of the toothbrush.

20 14. The electric toothbrush of Claim 13 wherein said one or more movable carrier reciprocates.

15. The electric toothbrush of Claim 1, wherein said receiving member and said neck of the toothbrush are a unitary body.

25 16. A kit comprising:  
(a) the toothbrush of Claim 1, and  
(b) one or more carriers selected from the group consisting of brush head tip carriers, static bristle carriers, movable bristle carriers, elastomeric element carriers, oral  
30 care composition carriers, and dental tool carriers, and any combination thereof.

17. An electric toothbrush comprising:  
(a) a handle at a first end of the toothbrush having a motor disposed therein;  
(b) a neck extending from said handle comprising a receiving member free of bristles  
35 at a second end of the toothbrush, wherein said receiving member receives a

plurality of bristle carriers to form a toothbrush head, wherein said plurality of bristle carriers comprise one or more static bristle carrier and one or more movable bristle carrier, and wherein said one or more movable bristle carrier is nested within said one or more static bristle carrier, and wherein said one or more static bristle carrier and said one or more movable bristle carrier independently slidingly engages said receiving member of said neck; and

(c) a drive shaft operatively connecting said one or more movable bristle carrier to said motor.

18. An electric toothbrush comprising:

(a) a handle at a first end of the toothbrush having a motor disposed therein;  
(b) a neck extending from said handle comprising a receiving member having bristles disposed thereon at a second end of the toothbrush, wherein said receiving member receives a plurality of carriers to form a toothbrush head, wherein said plurality of carriers comprise one or more static carrier and one or more movable bristle carrier, and wherein said one or more static carrier and said one or more movable bristle carrier independently slidingly engages said receiving member; and

(c) a drive shaft operatively connecting said one or more movable bristle carrier to said motor.

19. The electric toothbrush of Claim 18, wherein said static carrier is selected from the group consisting of brush head tip carriers, static bristle carriers, elastomeric element carriers, oral care composition carriers, and dental tool carriers, and any combination thereof.

20. A low energy consumption electric toothbrush comprising:

(a) a housing assembly including a brush head, a handle, and a neck extending between the brush head and the handle, the housing defining a hollow interior cavity;

(b) a movable bristle carrier disposed on the brush head;

(c) a motor providing a powered rotating shaft, a drive gear affixed to the shaft, and a power source in electrical communication with the motor and disposed in the hollow interior cavity,

(d) a crown gear rotatably supported in the hollow interior cavity and oriented such that the axis of rotation of the crown gear is perpendicular to an axis of rotation of the motor and the drive gear, the crown gear configured and engaged with the drive gear

of the motor such that the crown gear completes one revolution for a number, from one to three, of revolutions of the motor, the crown gear including (i) a first cam member extending from a face of the crown gear, the first cam having a center offset from the axis of rotation of the crown gear and (ii) a second cam member extending from a face of the first cam member, the second cam member having an axis of rotation co-extensive with the axis of rotation of the crown gear;

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(e) a drive shaft having a first end and a second opposite end, the first end engaged with the first cam member and the second cam member of the crown gear, and the second end engaged with the movable bristle carrier;

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(f) a first plurality of bristles retained on the movable bristle carrier;

(g) second plurality of stationary bristles retained on the brush head;

(h) wherein upon operation of the motor, the crown gear is rotated, thereby imparting a reciprocating motion to the drive shaft and to the movable bristle carrier disposed on the brush head.

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